

it is the burden of the USPTO to establish proper reasons for insisting upon restriction and none have been given.

Examination on the merits of all claims is respectfully requested.

AMENDMENT

Please amend the claims as indicated in the marked up copy to read as follows:

40. (Amended) A semiconductor device, comprising:

B 1 a first active region;

a second active region;

a third active region disposed between said first and second active regions; and

first, second and third contacts connected respectively to said first, second and third active regions;

said first and second active regions being symmetrically self-aligned.

45. (Amended) A device as recited in claim 42, comprising:

said base having a lower and an upper ledge; and

B 2 said third contact comprising:

a first base contact formed on said upper ledge self-aligned with said emitter; and

a second base contact formed on said lower ledge self-aligned with said collector.

46. (Amended) A device as recited in claim 42, comprising:

said base having a ledge;

said third contact formed on said ledge self-aligned with said emitter.

47. (Amended) A device as recited in claim 46, wherein:

said base has ledges on opposing sides; and

said third contact comprises:

a first base contact formed from a front side of said device; and

B2 a second base contact formed opposing said first base contact on said ledge self-aligned with said collector and formed from a back side of said device.

50. (Amended) A device as recited in claim 42, wherein:

B3 said base layer has a lower ledge and an upper ledge; and

said third contact comprises:

a first base contact formed on said upper ledge; and

a second base contact formed on said lower ledge.

Please add the following new claims:

52. (New) A device as recited in claim 40, wherein:

said first active layer comprises a first portion having a first width, and a second portion having a second width less than said first width.

B4 53. (New) A device as recited in claim 52, comprising:

said second portion disposed between said third active region and said first portion.

54. (New) A device as recited in claim 40, wherein:

said second active layer comprises a first portion having a first width, and a second portion having a second width less than said first width.

55. (New) A device as recited in claim 52, comprising:

said second portion disposed between said third active region and said first portion.

56. (New) A device as recited in claim 40, wherein:

said first active layer comprises a first portion having a first width, and a second portion having a second width less than said first width; and

said third active layer comprises a third portion having a third width, and a fourth portion having a fourth width less than said third width.

57. (New) A semiconductor device structure, comprising:

a first active region;
a second active region; and
a third active region disposed between said first and second active regions; and
first, second and third contacts connected respectively to said first, second and third
active regions;

a position of said first active region being self-centered with a position of said second
active region in said device structure.

58. (New) A structure as recited in claim 57; wherein:

B4 said position of said first active region in said structure is self-centered with said
position of said third active region; and

said position of said second active region in said structure is self-centered with said
position of said third region.

59. (New) A structure as recited in claim 57, comprising:

said first, second and third active regions formed in a vertical stack;

said stack having a vertical axis passing through a center of said first, second and
third active regions; and

said first, second and third active regions each being symmetric about said vertical
axis.

60. (New) A structure as recited in claim 59, wherein:

said first and second contacts being symmetric about said vertical axis.

61. (New) A structure as recited in claim 60, comprising:

said third contact being symmetric about said vertical axis.

62. (New) A structure as recited in claim 57, comprising:

said third active region having a ledge; and

said third contact disposed on said ledge.

63. (New) A structure as recited in claim 57, comprising:

said third active region having ledges on opposing surfaces; and

said third contact disposed on each of said ledges.

64. (New) A structure as recited in claim 57, comprising:

said third active region having a side surface and a plane surface; and

said third contact disposed on said side and plane surfaces

65. (New) A structure as recited in claim 57, comprising:

said third active region having a side surface and two opposing plane surfaces; and

said third contact disposed on each of said side and said opposing plane surfaces.

66. (New) A structure as recited in claim 57, comprising:

said first active region having a width substantially equal to a width of said first contact; and

said second active region having a width substantially equal to a width of said second contact.

67. (New) A structure as recited in claim 57, wherein:

said first active region comprises an emitter region;

said second active region comprises a collector region; and

said third active region comprises a base region.

68. (New) A structure as recited in claim 67, wherein:

said position of said emitter region in said structure is self-centered with said position of said base region; and

said position of said collector region in said structure is self-centered with said position of said base region.

69. (New) A structure as recited in claim 67, comprising:

said emitter, base and collector regions formed in a vertical stack;

said stack having a vertical axis passing through a center of said emitter, base, and collector regions; and

said emitter, base, and collector regions each being symmetric about said vertical axis.

70. (New) A structure as recited in claim 69, wherein:

said first and second contacts being symmetric about said vertical axis.

71. (New) A structure as recited in claim 69, comprising:

said third contact being symmetric about said vertical axis.

72. (New) A structure as recited in claim 67, comprising:

said base region having a ledge; and

said third contact disposed on said ledge.

73. (New) A structure as recited in claim 67, comprising:

said base region having ledges on opposing surfaces; and

said third contact disposed on each of said ledges.

74. (New) A structure as recited in claim 67, comprising:

said base region having a side surface and a plane surface; and

said third contact disposed on said side and plane surfaces.

75. (New) A structure as recited in claim 57, comprising:

said base region having a side surface and two opposing plane surfaces; and

said third contact disposed on each of said side and said opposing plane surfaces.

76. (New) A structure as recited in claim 67, comprising:

said emitter region having a width substantially equal to a width of said first contact;

and

said collector region having a width substantially equal to a width of said second contact.

Claims 40-76 are now present in this application, Claims 52-76 being added by way of the present amendment. It is respectfully submitted that examination on the merits is in order, and an early and favorable decision is earnestly solicited.

Respectfully submitted,

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